Food from Thought: A Literature Review Supporting the Development of an Interdisciplinary Experiential Learning Program in the University of Minnesota Dining Halls

Katie M. Benson

Submitted under the supervision of Dr. Leonard Marquart Ph.D. to the University Honors Program at the University of Minnesota-Twin Cities in partial fulfillment of the requirements for the degree of Bachelor Science, *summa cum laude*, in Nutrition Science.

May 12, 2021

Acknowledgment

The following literature review was conducted as a part of a larger advocacy process. In the spring semester of 2021, the Student-Driven Dining Reform committee was officially developed to promote an interdisciplinary experiential learning program in the University of Minnesota – Twin Cities dining halls for the College of Food, Agricultural, and Natural Resource Sciences (CFANS) undergraduate students. In its operations, this committee has met with CFANS administrators, CFANS alumni board representatives, CFANS Minnesota Student Association senators, the Director of Contract Administration, interested faculty and staff, and other notable parties that may play a role in developing an interdisciplinary experiential learning program in the University of Minnesota dining halls. This literature review was conducted to supplement and support the work of the committee by providing evidence for the foundational claims regarding the creation of student-centered involvement in the campus food system. The work of this committee will extend into the coming academic year to further advocate for this work.

In addition to myself, the Student-Driven Dining Reform committee consists of undergraduate students Thomas Boehlke, Cora Hougard, and Leah Transburg, graduate student Melissa Jansma, and faculty advisor Dr. Leonard Marquart. I would like to thank each of these group members for their dedication and ongoing commitment to improving the dining options on the University of Minnesota – Twin Cities campus. I would also like to thank Dr. Leonard Marquart, Dr. Francine Overcash, and Melissa Jansma for their guidance in writing this review.

Abstract

The research presented in this literature review discusses the benefits and barriers to implementing an interdisciplinary experiential learning program within the University of Minnesota – Twin Cities campus dining halls for undergraduate students enrolled in the College of Food, Agricultural, and Natural Resource Sciences. Evidence highlighting the educational advantages of this type of programming reveals improved creative thinking, holistic problem solving, and student investment in course materials. Furthermore, allowing students to collaborate to develop healthy recipes for the dining hall utilizes student understanding of peer preferences and habits to improve student nutrition. While this innovative course design also aligns closely with college and university goals and missions, barriers to implementing this program including the current dining contract with Aramark and obtaining necessary college administrative and faculty approval still exist.

Introduction

The University of Minnesota College of Food, Agricultural, and Natural Resource Sciences (CFANS) currently has approximately 1,800 undergraduate students enrolled in one or more of the 14 majors offered.[1,2] The CFANS mission is "to inspire minds, nourish people, and enhance the natural environment," an overarching theme present in course programming and college initiatives.[2] CFANS students are prepared for careers in their respective areas of study by engaging with a wide scope of food system elements including production agriculture, environmental sustainability, food safety and processing, and human nutrition.[2] Students in CFANS are encouraged to use science and creative thinking to develop the technologies and strategies needed to sustainably feed a growing world. Classwork within this college is heavily focused on developing career readiness through the implementation of internships, hands-on learning, and global perspectives in agriculture, food, and natural resources.[2] To graduate, all CFANS undergraduate students are required to take courses meeting experiential learning and interdisciplinary learning requirements.[3]

Residential dining options on the University of Minnesota campus shape the way most students eat and access food during their first years on campus. The university dining program, U Dining, includes six dining halls on the Twin-Cities campus: four on the East Bank campus, one on the West Bank campus, and one on the St. Paul campus, each closely associated with a residence hall.[4] Students living in residence halls are required to purchase a meal plan through U Dining that includes either 11, 14, or 19 meals per week in the campus dining halls.[4] Approximately 80 percent of University of Minnesota incoming freshmen live in residence halls their first year and therefore utilize these dining facilities for some or all of their nutritional needs.[5] With nearly all University of Minnesota Students utilizing the dining facilities during

their academic career on campus, U Dining is a key player in the nutritional landscape of the university. The University of Minnesota currently is under contract with the food service provider Aramark which manages and operates the university dining halls.[6] The role Aramark plays in the U Dining system gives it considerable responsibility in responding to student preferences and implementing changes in the dining halls.

While experiential and interdisciplinary learning opportunities play an integral role in CFANS programming, the considerable opportunity of engaging CFANS students with the mechanics and organization of the university dining system through class curriculum has not yet been implemented. Currently, being employed by U Dining is the most accessible route for students to play a role in the campus food system. There are several positions available in the dining halls as well as internships in finance, marketing, human resources, sustainability, and nutrition.[7] However, a program integrating CFANS coursework and U Dining initiatives has not yet been developed. The creation of an interdisciplinary, experiential learning curriculum designed to give CFANS students real experience within the many facets of the campus food system has the potential to be a mutually beneficial endeavor for students, faculty, and the University of Minnesota as a whole. The following research intends to illustrate the educational, nutritional, and institutional benefits of developing an experiential learning program to engage students in making real-world decisions about the food that is served on their campus while simultaneously enriching undergraduate education.

Educational Benefits

Experiential learning, an area of emphasis in CFANS, has been an important component of agricultural and food systems education for well over a century due to the influence of philosopher John Dewey in his 1916 book titled *Democracy and Education*.[2,8,9] Dewey's support

of experience-based learning diverged from the more common lecture-based pedagogies.[9,10] The concept of "learning by doing" was utilized heavily for the first half of the twentieth century, but many land-grant universities have long since reduced the requirement for field experience in food systems programming have been slow to reintroduce it.[8,9] Classes are instead lecture-based with assessments testing students' ability to recall facts.[9–11] Despite the complex nature of the food system, students are often presented with the many individual disciplines that complement it: biotechnology, economics, genetics, engineering, and others – all taught independently from one another. As such, agricultural and food systems education has reverted from experiential programming back to lectures on self-contained disciplines, leaving room for the development of interdisciplinary experiential programming.[8] The growing number of students engaged with the food system in their studies presents the unique opportunity to critically review and improve the food systems curriculum offered at the University of Minnesota.[10] The implementation of collaborative programming with U Dining would support and enhance experiential and interdisciplinary learning - key philosophies in food system education – and therefore enhance student outcomes.

Experiential Learning

Understanding the benefits of experiential learning requires an examination of areas in which lecture-based instruction falls short in engaging students with class content. Lecture-based learning often relies heavily on the memorization of presented concepts, which is usually found in conjunction with student assessment methods that favor fact regurgitation over problem solving and deep understanding of concept material. [9–11] Lecture-based learning also favors the teacher over the learner as it places the power to determine what constitutes relevant content out

of the learner's hands.[11] The reliance on lecture material to provide a complete picture of any given area of the food system also suppresses creative thinking, problem solving, and initiative.[11]

Conversely, experiential learning theory advocates for a learner-centered curriculum that gives students more autonomy to better support responsibility, creativity, leadership, and innovation.[11] This theory supports the idea that knowledge is created by the experiences of the learner, not by the transmission model often used to present learners with established ideas.[12] Student-centered learning does not negate the role of teachers and professors. In experiential learning models, teachers act as facilitators to guide, but not command the learning process.[11] Teachers in this role provide the framework and organization for the experiences provided, but also provide the space for reflection on experiences.[9] Reflection is a key component of experiential learning as it lets students synthesize and contextualize the meaning and implications of their experience.[9,10] Reflection may take many forms in the learning environment, with journaling, written work, and group discussion being common methods of facilitating the process.[10]

The campus food system could greatly benefit from the incorporation of experiential learning opportunities that allow students to engage deeply with the course content.[9–11,13] This could include class time in the dining hall kitchen developing healthy recipes, visiting U Dining facilities and assessing storage and food waste, meeting with suppliers or farmers discussing sustainability, or group work brainstorming solutions to holistically improve the system. In every level of determining the route from the farm to the fork, students have the potential to be involved with the food system. Providing CFANS students with experiences within U Dining can enrich their education, prepare them for future careers, and better the campus food system.

Interdisciplinary Learning

Interdisciplinary learning is foundational in effective food system education as it embraces the complex nature of the food system by combining its many related sciences, theories, and practices. [10] The food system has a vast and nebulous structure that connects many seemingly unrelated components: human health, economics, production agriculture, supply chain management, sustainability, policy, and many more.[8,10] In most universities, these food system subjects are taught as separate and distinct courses with limited emphasis on the relationships between subjects.[8] Interdisciplinary learning combines the principles from two or more subjects in one educational activity. Intentional incorporation of interdisciplinary programming engages students with a variety of connected subjects, ideas, and perspectives to provide a holistic view of the food system. [10]

Interdisciplinarity requires students to analyze, evaluate, and utilize multiple perspectives to solve complex problems by integrating both social and scientific principles.[10] With the grand challenge of reshaping the present food system to one that provides healthy, just food while preserving the environment, the future professionals in the food system will be tasked with managing the interconnectedness of agriculture, water, food, and health. The ability to integrate the ideas, needs, and values of a diverse audience of stakeholders is a skill that must be practiced and honed.[8] The complexity of weighing the tradeoffs and connectedness of issues in the food system encourages students to build their skills in creative and multi-dimensional thinking and intricate problem solving – skills that will prove useful in careers.[10,14] Beyond the employability outcomes achieved, student preference for interactive learning can also be noted. Students show a high interest in various types of experiential learning including field trips, excursions, group discussions, and interactive workshops.[13] Exposure to the real-world food systems is not only an

exceptional way for students to learn, but it is also a way to improve student satisfaction with their courses.

Interdisciplinary approaches also create a natural space for collaborative group work. By drawing students with a range of experiences, interests, and backgrounds, cooperative group work allows students to expand on their understanding of food systems issues by learning from the perspectives of their peers.[10] In the development of a CFANS program within U Dining, the involvement of students from multiple areas of study would foster an improved ability to identify and develop solutions for the food system on campus. For example, in solving the problem of food waste in the dining halls, sustainability students may assess the current state of food waste, nutrition students may discuss portions and food preferences, plant science students might bring up composting options, agricultural communications and marketing students could develop a campaign to raise awareness, and applied economics students might assist in a cost-benefit analysis of different solutions. The different perspectives and areas of expertise of students in diverse CFANS majors would lend to an improved understanding of the many facets of food system challenges and the development of more holistic solutions.

Nutritional Benefits

The development of a program engaging students with the university dining experience has the potential to impact all students on campus. Students aged 18-25 fall within a life stage deemed “emerging adulthood” which is characterized by identity development and a shift in interpersonal influences. These factors have important ties to the development of long-term behavioral patterning, such as healthy lifestyle habits relating to nutrition and physical activity.[15] The rapidly changing physical environment found in the lives of many college students provides an opportunity to acquire healthy habit which can be carried forward to adulthood.[15–17] Yet, a

decline in diet quality and an increase in fast food consumption has also been noted during the shift from adolescence to emerging adulthood which can be accompanied by weight gain.[15,16] There continues to be room for growth in improving the diets of the students at the University of Minnesota as well. The University of Minnesota 2018 College Student Health Survey reports that only 16.9 percent of college students are meeting the recommended daily intake of fruits and vegetables. This survey also indicates a prevalence of diet-related diseases on campus with 31.1 percent of University of Minnesota – Twin Cities students falling into overweight, obese, or extremely obese BMI ranges.[18]

Several external factors influence the eating habits that students develop over their college careers. The social-ecological model describes five different levels of influence that impact individual eating behaviors including individual, interpersonal, organizational, community, and system or policy.[19] In college dining, the first three levels are the most prevalent and easily adjusted to facilitate healthier eating. Individual factors include personal knowledge and preferences, interpersonal factors involve social norms and peer influence, and organizational factors include university dining hall management and operations (Figure 1). The environment that shapes food choice can either enhance or inhibit students' ability to make healthy diet decisions. Several barriers students experience that discourage healthy dietary habits on college campuses have been identified and include a perceived lack of healthy options available on campuses, meal plan characteristics, time and convenience, peer influence, and food preferences. Identified enablers that encouraged healthy eating patterns included nutritional knowledge, social support, and a preference for healthy foods [16,17,20–22]

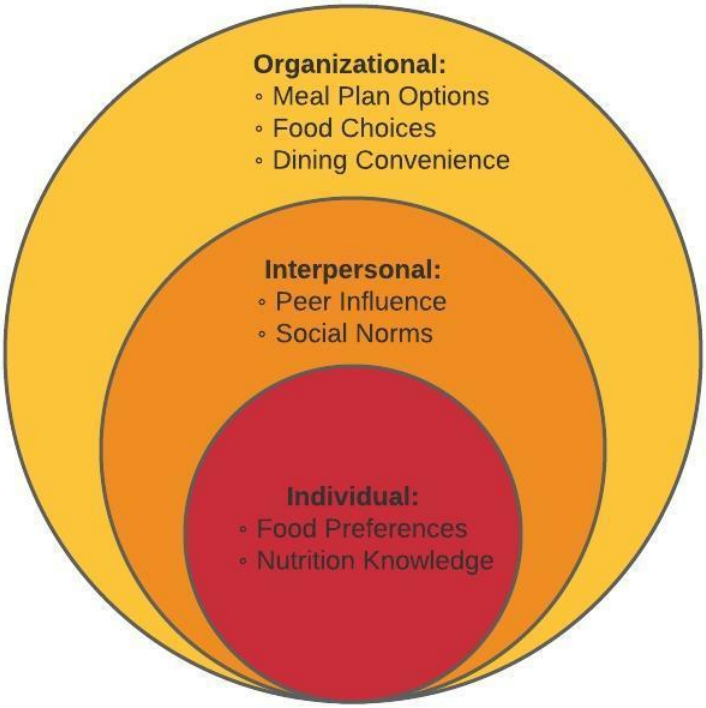

Figure 1. The individual, interpersonal, and organizational factors of the social-ecological model impacting student food choice and nutrition.

Food Preference

Students have indicated that they are more drawn to foods that suit their taste preferences, which can have both positive and negative health implications. Unhealthy foods may appeal to students over healthy options because of a taste preference for unhealthy options. Conversely, some healthy options may be more desirable than others due to personal taste preferences and the recipes and preparation methods utilized.[16,17,20] Allowing students to participate in developing new menu items for the dining halls with the goal of making healthy, delicious dishes that meet the preferences and nutritional needs of the student body has the potential to improve healthy eating habits on campus.

The process of being involved with the creation of new menu items, sourcing sustainable foods, and reevaluating the health of provided meals can also help students to build healthier eating habits. The process of being involved with the creation of a food, product, project, or idea can often lead students to find more value in the outcome. This phenomenon, often called the "IKEA effect" after the buyer-assembled furniture brand, describes the higher value placed on items that people have constructed themselves. Psychologically this can be described as effort justification – the principle that self-created work is more valuable than other-made work because of the effort put into making it. This principle also applies to food and the perceptions of the quality and taste of meals.[23–25]

Several studies have shown that the act of preparing food can significantly increase how much participants like the food or recipe they have prepared.[23,24] In addition to this, self-prepared food also leads to an increased health salience, or the awareness of whether the ingredients in the recipe are healthy or unhealthy.[23] These findings hold opportunity for the development of new recipes in the dining halls. Research concerning the IKEA effect and food has mostly investigated the impact of hands-on preparation and the experienced satisfaction from one self-prepared food item.[23–25] Engagement with developing new healthy recipes for the dining halls could therefore increase student preferences towards these new healthy options. However, the principles of the IKEA effect also apply more widely to the university food system. Allowing students to actively collaborate with professionals in U Dining to develop new menu items, determine peer preferences, and dream up innovations for campus dining will likely result in these students finding more value in the university dining halls and the meals they serve. The follow-through and successful completion of projects also plays a role in the value that participants find in their work, signifying that real-life utilization of student-developed ideas in

the dining halls would lead students to find more value in the work that was realized than hypothetical problem solving exercises.[25]

Peer Influence

Peer influence plays another important role in the nutritional choices of students on campus. Students' nutrition choices can be both positively and negatively influenced by the choices of their peers. Seeing peers consume fruits, vegetables, and healthy dishes increases the likelihood that students will also choose healthy options.[16,20] If students in the experiential learning program develop healthy foods that they like and are excited about, their peers who may not be in the program are still more likely to mirror their habits and try these healthier foods. Students in the program are also more likely to develop healthy recipes that meet the preferences of their peers, thus improving nutrition and student satisfaction. In essence, the improvement of dietary habits of any of the students in the dining halls has the potential to improve the habits of their peers.

Student-Centered Dining

Student input is critical in working to understand the most effective strategies for improving student nutrition in the dining halls. Students know what they like and have a more holistic understanding of the habits of their peers. With a better understanding of student habits and preferences, several food choice factors could be utilized to improve nutrition. With busy class schedules and stressful course loads, the convenience of foods served in the dining halls can also influence student food choice. When fruits, vegetables, and other healthy dishes are conveniently packaged or prepared, it increases the chances that students will choose healthy options.[21] Student perspectives on developing convenient healthy options could leverage this

concept to benefit nutrition. Student insight would also be valuable in creating recipes that meet peer cultural preferences and in developing relevant marketing campaigns to promote healthy eating. Involving CFANS students in dining decisions would allow the dining halls to remain relevant in catering to student needs and preferences while also enhancing nutritional benefits for the student body.

Institutional Benefits

The implementation of this program also has benefits for the University of Minnesota and the College of Food Agricultural, Food, and Natural Resource Science as institutions. CFANS has developed a Roadmap to Excellence to describe the strategies that they plan to employ to uphold the CFANS mission and vision and strengthen the overall vision of the University of Minnesota. There are several components of the roadmap that would be supported by the implementation of experiential interdisciplinary programming in the dining halls. One of the goals outlined in the roadmap states "Students first – Teach tomorrow's leaders" indicating the value that CFANS places in developing the student experience and engaging students in opportunities that will best serve them in future careers.[26] One of the outlined academic strategies to achieve these goals explicitly calls for the creation and enhancement of interdisciplinary learning approaches in the curriculum.[26] The development of CFANS curriculum within the dining halls would therefore align quite well with the institutional plans that CFANS has constructed to guide future programming.

In addition to this, the strategic objectives to "attract and retain top students" and "enhance student experience" could also be fulfilled by program implementation.[26] The development of a positive image is crucial for colleges to recruit and retain prospective students. Specifically, the development of branding that focuses on the unique qualities of a particular

university is vital in helping to set an institution apart from other competitors. The strength of academic programming and recognition of what a university is well known for are two key elements of branding that would be supported by the implementation of curriculum in the dining halls on campus.[27] The addition of this program to CFANS marketing material would also be consistent with the current promotional messages of CFANS that illustrate student involvement with real-world issues.[28]

Furthermore, the enhancement of students' experience would be fulfilled in developing this unique learning opportunity that impacts not only the students in the program but the food system for all students on campus. On a larger scale, the implementation of this curriculum would also support the initiatives of the University of Minnesota as a whole. As outlined in the university's 2025 MPACT strategic plan, there are many goals and actions of the university that would be supported by the development of this program. Goals in the areas pertaining to multidisciplinary opportunities in curriculum, career preparation for students, student health and wellness, and innovative educational offerings would be reinforced by this programming.[29]

Barriers to Program Implementation

The benefits of implementing an interdisciplinary learning program in the University of Minnesota dining halls span from academic success to fulfilling university strategic goals, yet the development of this program faces several challenges.

Collaboration with U Dining

Most significantly, a meaningful collaborative relationship must be established between CFANS faculty and U Dining. Given that Aramark is contracted through U Dining, it is also crucial that Aramark is willing to collaborate with students and implement the changes that

students make and recommend. Aramark is one of the three largest corporations that together run over half of all institutional food service in the United States. Most of the profits of corporate foodservice providers like Aramark are made by developing favorable rates for long-term source contracting, which would make implementing changes to recipes and choosing locally sourced goods more challenging. [30] However, discussions about shifting the university dining to become self-operated or seek a new dining contractor are continuing and will likely influence how this program can be implemented. Due to COVID-19 changes on campus, the University of Minnesota Board of Regents extended the current contract with Aramark up until June 30, 2023, at the October 2020 meeting to provide more time to investigate the impact of changing to self-operated food service or developing a request for proposal.[31,32] If the university decides to shift operations to a self-operated system, there would be greater flexibility and opportunity for meaningfully implementing this learning program, especially in regards to allowing students to play a role in selecting local foods and influencing menu design. Typically, self-operated food systems have more flexibility in food sourcing and purchasing decisions.[30]

Support of CFANS Administration, Faculty, and Students

Secondly, the implementation of a program that connects students from many majors within CFANS relies on the involvement and investment of CFANS administration, faculty, and staff. Without appropriate support from the various CFANS departments, developing an interdisciplinary program is nearly impossible. Investment into this programming would be needed most fully from the departments of Food Science and Nutrition, Applied Economics, and Bioproducts and Biosystems Engineering, but many other CFANS departments could also collaborate.[33] Beyond departmental support, the programming will require the commitment of several faculty members to this type of program. Depending on the interest from faculty

members, a new course for this experience may be created, or it may be implemented into the curriculum of one or more preexisting courses. The development of course activities, objectives, and assessments will take time and effort by program coordinators, and forming a meaningful relationship with U Dining will also take considerable time and organization. However, the interdisciplinary aspect of this course would allow for increased collaboration and shared responsibilities among interested faculty. The process of facilitating this student experience could also include assistance from CFANS alumni with relevant experience which will also expose students to future careers in the food system.

Recommendations

Given the potential benefits and challenges presented, the development of an interdisciplinary experiential learning program in the university dining halls will require continued investigation and advocacy efforts. The Student-Driven Dining Reform committee has a current interest in this topic and would like to maintain the momentum of their efforts by developing a task force to continue this topic in the 2021-2022 academic year. The task force assembled to continue this work would be comprised of CFANS students, faculty, staff, and alumni interested in the development of this program. The task force would gather information and support for this program in five target areas. These target areas have been identified below and in the project roadmap provided in the appendix.

- Seek input from students, faculty, staff in focus groups, discussions, and surveys to gauge interest and support in this type of programming and gather ideas for successful implementation.

- CFANS classes related to the implementation of this project should be included in project planning and efforts. Such classes include but are not limited to FSCN 1906, FSCN 3731/3732, FSCN 4732, and independent study courses.
- Develop a close relationship with the University of Minnesota dietetic internship program to better collaborate on areas of mutual interest.
- Inquire about the existence of similar programming in place at other colleges and universities. Interview existing program leaders to understand program strengths and challenges.
- Advocate for programming utilizing structures supporting the voice of the student body including the Minnesota Student Association and the CFANS Undergraduate Student Board.

Addressing these five target areas will allow the task force to obtain important information and collaborators needed to move this project forward.

Conclusion

An interdisciplinary experiential learning program can revolutionize the operations of the University of Minnesota – Twin Cities campus food system by involving students directly with dining hall management and proceedings. Hands-on, real-world experience working with peers, faculty, and dining hall staff to improve recipes and processes will deepen student investment in course material and provide skills needed for career success. Involvement in developing healthier recipes on campus would also assist in improving student nutrition by leveraging factors of food choice including self-prepared foods, peer influence, and student preferences. Developing a program of this nature also aligns closely with the CFANS and University of Minnesota strategic

goals and mission statements. With the possibility of shifting to a self-operated campus food system in the next five years, there is opportunity to incorporate this programming into the initial analysis and transition planning. Further research needs to be done on this topic to explore student and faculty opinions and ideas more extensively regarding the development of this coursework. The creation of interdisciplinary experiential learning courses in the university dining halls looks beyond simply serving meals; it aims to advance educational outcomes, improve student nutrition, and further realize the mission of CFANS and the University of Minnesota.

References

1. Official Enrollment Statistics | OIR. Accessed March 28, 2021. https://oir.umn.edu/student/enrollment

2. About CFANS | College of Food, Agricultural, and Natural Resource Sciences. Accessed March 28, 2021. https://cfans.umn.edu/about

3. Experiential and Interdisciplinary Learning Requirements | College of Food, Agricultural and Natural Resource Sciences. Accessed April 18, 2021. https://cfans.umn.edu/academics/undergrad-resources/academic-policies/experiential-interdisciplinary-learning

4. Meal Plan Guide 2020-2021. Accessed April 5, 2021. https://pub.umn.edu/dining/Meal-Plan-Guide-2020-2021/

5. Housing | Study at UMN : University of Minnesota. Accessed April 5, 2021. https://intlstudy.umn.edu/undergrad/housing

6. University of Minnesota - Twin Cities Dining Services | M Dining. Accessed April 5, 2021. https://dining.umn.edu/

7. M Dining Student Jobs | M Dining. Accessed April 5, 2021. https://dining.umn.edu/jobs

8. Francis CA, Jordan N, Porter P, et al. Innovative Education in Agroecology: Experiential Learning for a Sustainable Agriculture. *Critical Reviews in Plant Sciences*. 2011;30(1-2):226-237. doi:10.1080/07352689.2011.554497

9. McKim AJ, Greenhaw L, Jagger C, Redwine T, McCubbins OP. Emerging Opportunities for Interdisciplinary Application of Experiential Learning among Colleges and Teachers of Agriculture. *NACTA Journal*. 2017;61(4):310-316.

10. Hilimire K, Gillon S, McLaughlin BC, Dowd-Uribe B, Monsen KL. Food for Thought: Developing Curricula for Sustainable Food Systems Education Programs. *Agroecology and Sustainable Food Systems*. 2014;38(6):722-743. doi:10.1080/21683565.2014.881456

11. Ison RL. *TEACHING THREATENS SUSTAINABLE AGRICULTURE*. International Institute for Environment and Development; 1990. Accessed April 7, 2021. http://www.jstor.org/stable/resrep01661

12. Kolb AY, Kolb DA. Learning Styles and Learning Spaces: Enhancing Experiential Learning in Higher Education. *Academy of Management Learning & Education*. 2005;4(2):193-212.

13. Migliorini P, Wezel A, Veromann E, et al. Students' knowledge and expectations about sustainable food systems in higher education. *International Journal of Sustainability in Higher Education*. 2020;21(6):1087-1110. doi:10.1108/IJSHE-12-2019-0356

14. Francis CA, Jensen ES, Lieblein G, Breland TA. Agroecologist Education for Sustainable Development of Farming and Food Systems. *Agronomy Journal*. 2017;109(1):23-32. doi:https://doi.org/10.2134/agronj2016.05.0267

15. Nelson MC, Story M, Larson NI, Neumark-Sztainer D, Lytle LA. Emerging Adulthood and College-aged Youth: An Overlooked Age for Weight-related Behavior Change. *Obesity*. 2008;16(10):2205-2211. doi:https://doi.org/10.1038/oby.2008.365

16. Amore L, Buchthal OV, Banna JC. Identifying perceived barriers and enablers of healthy eating in college students in Hawai'i: a qualitative study using focus groups. *BMC Nutrition*. 2019;5(1):16. doi:10.1186/s40795-019-0280-0

17. Hartman H, Wadsworth DP, Penny S, van Assema P, Page R. Psychosocial determinants of fruit and vegetable consumption among students in a New Zealand university. Results of focus group interviews. *Appetite*. 2013;65:35-42. doi:10.1016/j.appet.2013.02.005

18. University of Minnesota. 2018 College Student Health Survey Report. Published online 2018.

19. Foreword | Ovid. Accessed May 11, 2021. https://oce-ovid-com.ezp2.lib.umn.edu/article/00003727-200601000-00002/HTML

20. Deliens T, Clarys P, De Bourdeaudhuij I, Deforche B. Determinants of eating behaviour in university students: a qualitative study using focus group discussions. *BMC Public Health*. 2014;14(1):53. doi:10.1186/1471-2458-14-53

21. LaCaille LJ, Dauner KN, Krambeer RJ, Pedersen J. Psychosocial and Environmental Determinants of Eating Behaviors, Physical Activity, and Weight Change Among College Students: A Qualitative Analysis. *Journal of American College Health*. 2011;59(6):531-538. doi:10.1080/07448481.2010.523855

22. Ashton LM, Hutchesson MJ, Rollo ME, Morgan PJ, Thompson DI, Collins CE. Young adult males' motivators and perceived barriers towards eating healthily and being active: a qualitative study. *International Journal of Behavioral Nutrition and Physical Activity*. 2015;12(1):93. doi:10.1186/s12966-015-0257-6

23. Dohle S, Rall S, Siegrist M. Does self-prepared food taste better? Effects of food preparation on liking. Accessed April 16, 2021. https://psycnet-apa-org.ezp3.lib.umn.edu/fulltext/2015-57034-001.html

24. Dohle S, Rall S, Siegrist M. I cooked it myself: Preparing food increases liking and consumption. *Food Quality and Preference*. 2014;33:14-16. doi:10.1016/j.foodqual.2013.11.001

25. Norton MI, Mochon D, Ariely D. The IKEA effect: When labor leads to love. *Journal of Consumer Psychology*. 2012;22(3):453-460. doi:10.1016/j.jcps.2011.08.002

26. CFANS Roadmap | College of Food, Agricultural and Natural Resource Sciences. Accessed March 28, 2021. https://cfans.umn.edu/about/roadmap

27. Han P. A Literature Review on College Choice and Marketing Strategies for Recruitment. *Family and Consumer Sciences Research Journal*. 2014;43(2):120-130. doi:https://doi.org/10.1111/fcsr.12091

28. Home Page | College of Food, Agricultural and Natural Resource Sciences. Accessed April 13, 2021. https://cfans.umn.edu/

29. University of Minnesota. MPACT 2025 Systemwide Strategic Plans.

30. Barlett PF. Campus Alternative Food Projects and Food Service Realities: Alternative Strategies. *Human Organization*. 2017;76(3):189-203. doi:10.17730/0018-7259.76.3.189

31. University of Minnesota Board of Regents. Finance & Operations Committee Docket. Published online October 8, 2020.

32. University of Minnesota Board of Regents. October 2020 Board of Regents Meeting Minutes. Published online October 8, 2020.

33. Departments | College of Food, Agricultural and Natural Resource Sciences. Accessed April 18, 2021. https://cfans.umn.edu/about/departments

UNIVERSITY OF MINNESOTA
STUDENT DRIVEN DINING REFORM

PROJECT ROADMAP

PROJECT TASK FORCE

The development of a project task force to continue the efforts of this initiative is essential for the long-term sustainability of this project. The task force created to carry forward the goal of developing an interdisciplinary experiential learning program in the University of Minnesota dining halls should be comprised of CFANS students, faculty, staff, administration, and alumni who are invested in furthering this aim. The task force will continue this work by focusing on the following target areas.

PROJECT TARGETS

SEEK INPUT

Involve students, faculty, and staff in focus groups, discussions, or surveys to assess interest and support for this initiative.

DIETETIC PARTNERSHIP

Develop a close relationship with the University of Minnesota dietetic internship program to better collaborate on areas of mutual interest.

BUILD SUPPORT

Advocate for programming utilizing structures supporting the voice of the student body including the Minnesota Student Association and the CFANS Undergraduate Student Board

INVOLVE CLASSES

CFANS classes related to the implementation of this project should be included in project planning and efforts. Such classes include but are not limited to:

- FSCN 1906
- FSCN 3731/3732
- FSCN 4732

EXISTING PROGRAMS

Inquire about the existence of similar programming in place at other colleges and universities. Interview existing program leaders to understand program strengths and challenges.